JOCELYN HSU

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EDUCATION

JOHNS HOPKINS UNIVERSITY (JHU) — Baltimore, MD
- B.S. in Biomedical Engineering, minor in Computer Science — Expected May 2023
- Relevant Coursework: Intermediate Programming, BME Design Group, Statistical Physics, Linear Signals and Systems, Discrete Mathematics, Biomaterials, Tissue Engineering Blood Vessels, Probability, Statistics, Linear Algebra, Differential Equations, Structural Biology of the Cell

RESEARCH EXPERIENCE

RESEARCHER @ LABORATORY FOR COMPUTATIONAL INTENSIVE CARE MEDICINE, JHU — Baltimore, MD
- Developing Targeted Temperature Management (TTM) algorithm for personalized post-cardiac arrest treatment — Sep 2020 - present

RESEARCHER @ SEARSON GROUP, JHU — Baltimore, MD
- Conducted microfabrication lab and image analysis to model the blood brain barrier — Sep 2019 – Aug 2020
- Modeled *in vitro* sweat ducts to study cystic fibrosis

INTERN @ PLANT LAB, STANFORD INSTITUTES OF MEDICINE SUMMER RESEARCH PROGRAM (SIMR) — Palo Alto, CA
- Performed immunostaining, mounting, and imaging with confocal microscopy to observe regeneration of neurons with injected iPSCs (induced pluripotent stem cells) in injured spinal cord tissue of rats — Jun 2019 – Aug 2019
- Devised and implemented VBA code to analyze spinal cord injury data efficiently
- Presented findings at Stanford SIMR poster session
- Selected to represent SIMR and speak at Caltech CIRM SPARK conference

RESEARCHER @ SORIN LAB, CALIFORNIA STATE UNIVERSITY LONG BEACH (CSULB) — Long Beach, CA
- Established computational biochemical simulations and analyzed results to find properties of inhibitors that prevent the progression of Alzheimer's disease most effectively — Jun 2018 – May 2019
- Presented findings at 2018 American Chemistry Society (ACS) Western Regional Meeting & 2019 Southern CA Undergraduate Research Conference

WORK & LEADERSHIP EXPERIENCE

CO-FOUNDER & PROTYTPING DIRECTOR, PEDIAFEED — Baltimore, MD
- Designing neonate gastric enteral access feeding tubes to address current dislodgment concerns — Jan 2020 - present
- Spearheading prototyping pipeline of internal retention and locking mechanisms
- Received 2020 UC Davis Big Bang! Business Competition People's Choice Award ($10K) and Health Innovation Award ($3K)

CO-FOUNDER, HOPKINS VIRTUAL TUTORING — Baltimore, MD
- Overseeing tutoring program connecting JHU students to local K-12 Baltimore students — Jun 2020 – present
- Developing website for recruitment of tutors and students

CAPTAIN, VEX ROBOTICS — Carson, CA
- Built effective autonomous robotic algorithms and introduced effective workflow system — Jun 2017 – Jun 2019
- Qualified for 2018 & 2019 VEX U.S. Open (national competition)
- Achieved 3 Excellence Awards in 3 regional competitions

SKILLS

Software: C, C++, R, MATLAB, Java, Bash, ImageJ, VBA, CAD (Solidworks/Autodesk Inventor/Creo)
Laboratory: 3D-printing, western blotting, cell culture, confocal microscopy, immunostaining, soldering